COOLING TECHNOLOGY INSTITUTE

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May 9, 2003

Mr. G. William Pennington
Chief Energy Efficiency Program Specialist
California Energy Commission
1516 9th Street, MS 28
Sacramento, CA 95814-5512

Subject: Product Certification Requirements

Dear Mr. Pennington:

I am writing on behalf of the Cooling Technology Institute (formerly the Cooling Tower Institute) to express our support of the California Energy Commission for including a provision for mandatory, independent, third party certification of cooling tower thermal performance and efficiency in the 2005 edition of their Building Energy Efficiency Standards.

Performance certification of core HVAC system components started some 50 years ago and has now grown to the point where programs exist for virtually all such products, including cooling towers. The CTI program for cooling towers was revitalized in 1982 and since then has grown to include nine manufacturers, both domestic and international, and twenty eight (28) model lines, ranging in capacity from 5 tons to nearly 2000 tons per cell. Certification programs are an extremely cost effective way to assure designers, contractors, owners, and regulating agencies up front that the equipment installed will perform as intended; without the need for costly, site specific, field performance tests and possible subsequent retrofits to the equipment. On the other hand, in the absence of such certifications, failure of one major system component such as the cooling tower to perform as represented affects not only the efficiency of that product, but of other certified components such as the chiller thereby defeating the whole intention of the standard.

Water cooled chillers installed in conjunction with cooling towers employing a proper water treatment program to maintain good water chemistry and thereby ensuring long-term system efficiency require significantly less energy to operate than do equivalently sized air cooled systems. As such, it generally is not in the best interest of the state of California to promote the use of air-cooled systems and we recommend you consider placing a capacity limit on such applications. However, it also would be short sighted not to recognize that there are, on occasion, good reasons to select air-cooled systems, particularly in the smaller size applications. Therefore, to provide for those smaller applications where air cooled technology could be suitable, but without extending carte blanche approval, we suggest for buildings with a total design load above 300 tons that the maximum installed capacity of air-cooled chillers be limited to 100 tons or less.

The CTI is a non-profit, self-governing, technical association founded in 1950 to advocate and promote the use of environmentally responsible Evaporative Heat Transfer Systems for the benefit of the public through:

- Education
- Research
- Technical Information Exchange
- Standards Development and Verification
- Government Relations

CTI's membership of over 315 corporations and 50 affiliates is comprised of manufacturers, suppliers, and owner/operators of evaporative cooling equipment and it is recognized by ANSI as a national standards producing organization. For further information, you may want to consult our website at www.cti.org.

Very truly yours,

The Cooling Technology Institute

F. L. Michell, President

cc: Mr. Mark Hydeman, P.E., Principal
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